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Water Supply Outlook For Oregon



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

OREGON DEPARTMENT OF WATER RESOURCES

AS OF
MAY 1, 1979

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: VIEW OF A SNOTEL DATA SITE IN THE SNOWY RANGE IN WYOMING. TALL CYLINDRICAL DEVICE IS A PRECIPITATION GAGE. SNOW PILLOWS ON THE GROUND NOT VISIBLE DUE TO SNOW COVER. SHELTER HOUSE, ANTENNA TOWER, ANTENNA, AND TEMPERATURE UNIT ARE VISIBLE BEHIND THE PRECIPITATION GAGE.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued
MAY 1, 1979

Issued by
R. M. DAVIS
ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON D C

Released by
GUY W. NUTT
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
PORTLAND OREGON

In Cooperation with
OREGON
DEPARTMENT
OF
WATER RESOURCES

Report prepared by
TOMMY A. GEORGE, Snow Survey Supervisor
RONALD A. JONES, Asst. Snow Survey Supervisor
WILLIAM E. WOOLCOCK, Hydrologic Technician
SOIL CONSERVATION SERVICE
1220 S.W. THIRD AVENUE
PORTLAND, OREGON 97204

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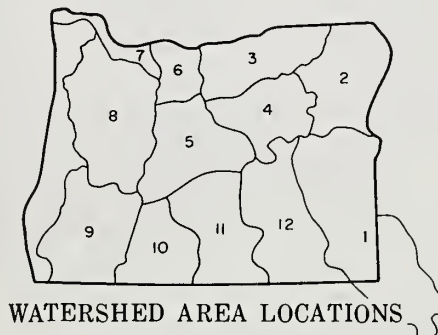
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MAP AND INDEX OF OREGON SNOW COURSES.....(MAP)

LIST OF COOPERATORS.....INSIDE BACK COVER



WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

May 1, 1979

* Water Supplies in Oregon this summer should be adequate in most *
* areas. Shortages are probable for irrigators dependent upon direct *
* diversions in Jackson, Josephine and Klamath Counties. April *
* proved to be a wet month throughout the State and helped improve *
* the outlook especially on streams from the central Cascades north *
* to the Columbia River. *

SNOW COVER

The snowpack continued to build at high elevations during April. Cool temperatures caused precipitation to fall as snow and delayed the melt that normally occurs during April. The snowpack is much above normal in most of eastern Oregon, near normal in the northern Cascades and much below normal in Klamath County and the southern Cascades.

PRECIPITATION

April brought much precipitation to Oregon. Rainfall was slightly above normal in Malheur County and much above average elsewhere in the State. Some stations in the Willamette Valley received as much rain during April as usually falls during April, May and June. Precipitation over the winter since last November has been generally below normal except in southeastern Oregon.

SOIL MOISTURE

Because of the April rains and some snow melt during March, mountain soil moisture is now near normal for this time of year.

RESERVOIR STORAGE

Stored water supplies are near normal or above in most irrigation reservoirs. Some reservoirs in southern Oregon will not fill. However, these reservoirs should provide adequate supplies of water except at Fish Lake and Fourmile Lake where supplies will be below average. Twenty-six major reservoirs are storing 2,567,500 acre feet compared to a normal of 2,593,300 acre feet.

-continued on next page-

STREAMFLOW

Streamflow was generally above average during April due to the heavy precipitation.

Forecasts of streamflow on representative Oregon streams are as follows:

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST % OF 1958-72 AVG.</u>
Owyhee net Inflow	May-Sept.	169
Malheur nr. Drewsey	May-Sept.	135
Deschutes at Benham Falls	May-Sept.	82
Grande Ronde at La Grande	May-Sept.	98
Willamette, Mid. Fk. nr. Oakridge	May-Sept.	95
Upper Klamath Lake net Inflow	May-Sept.	52
Rogue at Raygold	May-Sept.	65
Silvies nr. Burns	May-Sept.	136

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

WATER SUPPLY OUTLOOK

OWYHEE, MALHEUR WATERSHEDS

OREGON

GENERAL OUTLOOK

The water supply outlook for this area is still excellent. Streamflow forecasts are for volumes of 126% to 176% of average. The snowpack is still 118% to 181% of average. Precipitation for April was 110% of normal making seasonal precipitation about average. Storage in major reservoirs is above average. Soil moisture recharge is up to normal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		THOUSAND ACRE FEET		
	Thousand Acre Feet	Percent of Average	FORECAST PERIOD	Last Year	Average ^c
Bully Creek at Warm Springs	20.5	156	March-May		13.1
Malheur near Drewsey	40	126	May-July		32
	45	135	May-Sept.		33
Malheur, North Fork at Beulah	47	135	May-July		35
	53	133	May-Sept.		40
Owyhee Reservoir net Inflow	277	176	May-July	199	157
	304	169	May-Sept.	227	180

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	1000	May 30	May 24
	250	June 30	June 20

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Beulah Reservoir	60.0	54.7	59.7	50.3
Bully Creek	30.0	29.9	29.2	24.0
Owyhee	715.0	708.6	715.5	618.4
Warm Springs	191.0	161.0	151.0	147.5

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Malheur River	2	100	100

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Jordan Creek	3	132	181
Malheur River	4	370	118
Owyhee River	5	172	148

WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

Good to excellent water supply is forecast for this area. Forecasts range from 93% to 131% of normal streamflow. Snowpack water is 84% to 125% of average on major watersheds. April precipitation was 156% of average with a seasonal total near average. Reported reservoir storage is above average. Mountain soil moisture is slightly above average.

LEGEND

- Watershed Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Marker
- ⌈ Soil Moisture Station
- ⌋ Precipitation Gage
- ⚡ Radio Telemetry



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Bear Near Wallowa	59	102	May-Sept.		58
Burnt near Hereford	18.0	130	May-July		13.8
	19.4	131	May-Sept.		14.8
Catherine near Union	57	108	May-Sept.		53
Eagle Creek abv. Skull Creek	155	102	May-July		152
	171	103	May-Sept.		166
Grande Ronde at La Grande	89	96	May-July	80	92
	94	98	May-Sept.	86	96
Hurricane near Joseph	46	105	May-Sept.		44
Imnaha at Imnaha	264	104	May-Sept.		253
Lostine near Lostine	123	105	May-Sept.		117
Powder near Sumpter	47	119	May-July		40
	50	122	May-Sept.		41
Wallowa, East Fork near Joseph	7.9	93	May-July		8.5
	10.2	95	May-Sept.		10.7
Wallowa, at Joseph	69	98	May-July		70
Wolf Creek net Inflow	8.3	109	May-June		7.6

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Phillips Lake	73.5	67.9	51.3	59.1
Thief Valley	17.4	17.4	17.4	17.4
Unity	25.2	25.5	25.7	24.1
Wallowa Lake	37.5	36.1	28.0	30.9
Wolf Creek	10.4	8.7	11.1	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Burnt River	4	206	125
Grande Ronde River above La Grande	4	--	84
Powder River	5	153	118
Wallowa, Imnaha, Catherine Creek	6	107	107

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF	
		Last Year	Average ^c
Burnt, Powder	2	96	106
Grande Ronde, Catherine Creek, Imnaha River	3	108	106

WATER SUPPLY OUTLOOK

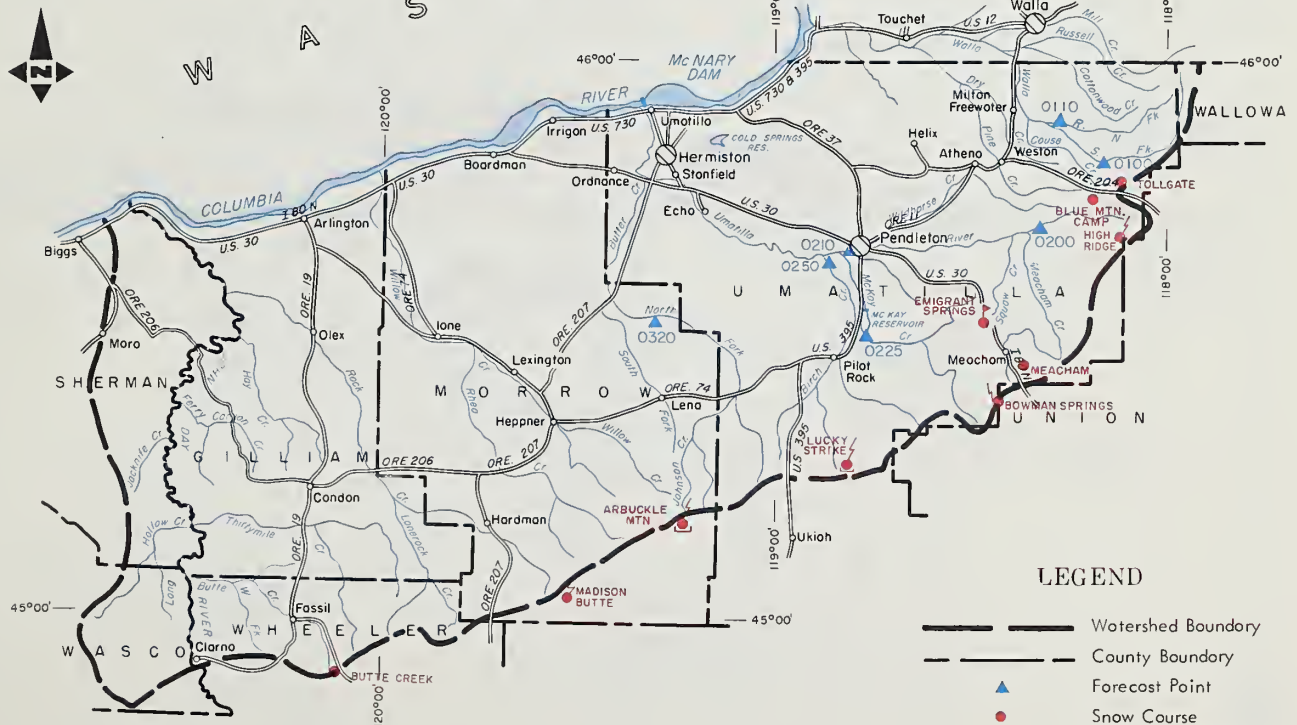
UMATILLA, WALLA WALLA, WILLOW, ROCK,
LOWER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

This area can plan on excellent water supplies this summer. Forecasts range from 106% of average on the Walla Walla to 176% of average on Butter Creek. Mountain snow packs are 124% to 168% of average over the area. April precipitation was 156% of normal with seasonal precipitation being near average. Cold Springs and McKay Reservoirs have above average storage. Mountain soil moisture is recharged to normal for this time of year.

10 0 10 20 30 MILES
SCALE 1:1,500,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Average ^c
McKay near Pilot Rock	12.5	142	May-Sept.	8.8
Umatilla near Gibbon	42	107	May-July	39
	49	108	May-Sept.	45
Umatilla at Pendleton	75	110	May-July	68
Walla Walla, South Fork near Milton	54	106	May-Sept.	51
Butter Creek nr. Pine City	6.0	176	May-July	3.4

FORECAST DATE OF LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 31	May 22

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	49.0	49.5	47.8
McKay	73.8	68.1	68.5	55.0

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Umatilla, Walla Walla, McKay Creek	3	101	97

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	3	488	168
Umatilla River	3	305	147
Walla Walla River	2	296	124

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

The Upper John Day area will have very good water supplies. Streamflow will range from 121% to 134% of average. The May 1 snowpack was 151% to 160% of average. April was very wet, having 163% of normal precipitation. Seasonal precipitation has been average. Mountain soil moisture is recharged to normal levels.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Camas Creek near Ukiah	21	128	May-July		16.2
John Day, Middle Fork at Ritter	90	134	May-July		67
	93	133	May-Sept.		70
John Day, North Fork at Monument	415	122	May-July		340
	432	122	May-Sept.		354
Strawberry near Prairie City	8.0	123	May-July		6.5
	8.7	121	May-Sept.		7.2

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
John Day above Dayville	3	98	97
John Day, North Fork	2	100	104

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
John Day, North Fork	7	289	160
John Day abv. Dayville	4	419	151

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Beaver Creek near Paulina	3.7	85	May-July		4.4
	3.9	85	May-Sept.		4.6
Crane Prairie Reservoir total Inflow	44	69	May-July		64
	71	68	May-Sept.		105
Crescent at Crescent Lake	8.6	55	May-July		15.6
	9.7	50	May-Sept.		19.6
Crooked near Post	27	85	May-Sept.		32
Deschutes at Benham Falls	220	78	May-July		281
	388	82	May-Sept.		471
Deschutes below Snow Creek	38	67	May-Sept.		56
Deschutes, Little near La Pine	33	55	May-July		53
	41	50	May-Sept.		63
Ochoco Reservoir net Inflow	8.1	88	May-Sept.		9.2
Squaw near Sisters	34	74	May-Sept.		46
Tumalo near Bend	29	74	May-Sept.		39
Deschutes at Bend	112	--	Aug.-Sept.		--

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	300	1/ June 6	July 15
Crooked R. near Post	100	June 6	June 1
Deschutes at Bend	1500	1/ June 13	July 1
Little Deschutes near La Pine	400	1/ June 13	June 7
	200		July 8
1/ Flow should not reach this level.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Crane Prairie	55.3	40.9	50.7	45.8
Crescent Lake	86.9	46.2	54.6	66.5
Ochoco	47.5	43.4	47.3	37.8
Prineville	153.0	157.0	161.8	145.0
Wickiup	200.0	200.6	197.0	189.4

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Crooked R., Upper Deschutes River	1	94	90

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Crooked, Ochoco	--	--	--
Deschutes abv. Wickiup	2	117	77
Little Deschutes	4	122	80
Tumalo & Squaw Crs.	3	126	61

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies in Hood and Wasco counties should be adequate this summer. The snowpack is now near normal. April brought cool temperatures and heavy precipitation. Precipitation was 160% of normal. This delayed the snow melt and caused the snowpack to continue to build. Streamflow forecasts are now expected to be 80% to 92% of average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Hood River near Hood River	157	83	May-July		189
	196	84	May-Sept.		233
Hood, West Fork near Dee	74	87	May-July		85
	98	92	May-Sept.		107
White below Tygh Valley	62	79	May-July		79
	76	80	May-Sept.		94

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	* 30	July 15-31	**39
* Average cfs forecast to flow for this two-week period. ** Average cfs for period of record.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake (Wasco)	11.9	1.5	4.7	6.7

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Hood River	3	233	96
Mile Creeks	3	233	96
White River	--	--	--

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

April precipitation improved the streamflow forecasts on the Columbia. The Columbia at The Dalles is forecast to flow 82% of average during the May-July period. This is 3% above last month's outlook. The Sandy River forecast is for 85% of normal flow.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Sandy River	2	216	96

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acres Feet	Percent of Average		Last Year	Average C
Columbia at The Dalles	62,000	82	May-July		76,815
	74,000	81	May-Sept.		91,550
Sandy River near Marmot	192	85	May-July		227
	245	87	May-Sept.		282

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^a (1,000 A.F.)			REGULATED PEAK (1,000 c.f.s.)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

Water supplies are expected to be adequate in the Willamette Valley. Although the snowpack is below average in the Cascades, spring precipitation during April was very heavy at 135% of normal. Some stations reported as much rain during April as is usually received during April, May and June. Streamflows are expected to range from 80%, on the Clackamas, to 95%, on the Willamette, of normal this summer.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Clackamas at Estacada	358	80	May-July		447
	469	83	May-Sept.		562
Clackamas above Three Lynx	295	86	May-July		343
	388	88	May-Sept.		440
McKenzie at McKenzie Bridge	271	82	May-July		329
	404	85	May-Sept.		474
McKenzie near Vida	602	84	May-July		720
	818	86	May-Sept.		947
McKenzie, So. Fork near Rainbow	118	84	May-July		140
	149	88	May-Sept.		169
Oak Grove Fork above Power Intake	82	93	May-July		89
	121	94	May-Sept.		128
Row near Dorena	48	90	May-July		53
	52	90	May-Sept.		58
Santiam, North at Mehama	444	90	May-July		493
	540	90	May-Sept.		600
Santiam, South at Waterloo	291	90	May-July		323
	344	90			382
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	439	95	May-July	316	462
	534	95	May-Sept.	431	562
Willamette, No. Fk. of Mid. Fk. near Oakridge	111	92	May-July		121
	128	92	May-Sept.		141
Willamette at Salem	2,357	90	May-July		2,619
	2,848	90	May-Sept.		3,165

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Clackamas River	2	--	95
McKenzie River	3	209	65
Row River	2	192	72
Santiam River	3	241	62
Willamette, Mid.Fk.	3	169	81

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Blue River	85.6*	73.4	59.7	74.9
Cottage Grove	30.0*	24.1	23.7	23.4
Cougar	155.2*	135.6	94.1	109.2
Detroit	299.9*	275.3	172.2	231.2
Dorena	70.5*	53.9	55.6	55.7
Fall Creek	115.0*	99.0	74.0	95.2
Fern Ridge	94.2*	95.3	77.8	83.9
Foster	30.0*	7.6	11.6	16.6 ^b
Green Peter	270.0*	231.6	158.3	209.1
Hills Creek	200.0*	176.2	147.3	146.3
Lookout Point	337.2*	299.4	143.1	227.4
Timothy Lake	61.7	40.6	56.6	60.4
Henry Hagg Lake	53.0	53.6	53.5	--
* Multiple purpose reservoir--space reserved primarily for flood runoff.				

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

ROGUE, UMPQUA, WATERSHEDS

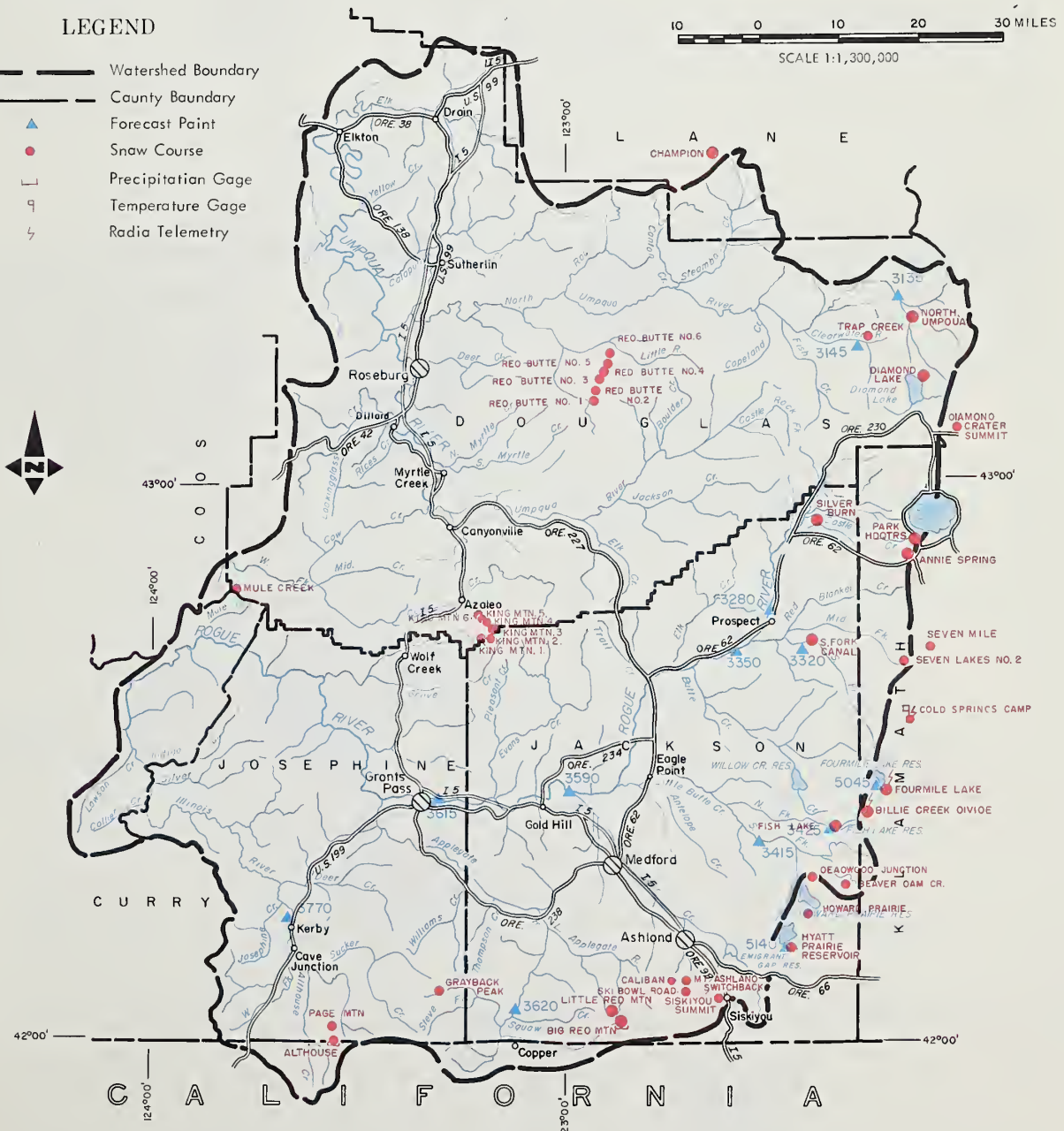
OREGON

GENERAL OUTLOOK

Jackson, Josephine and Douglas counties will have below average water supplies available this summer. Talent Irrigation District users are the exception because of good reservoir supplies. The snowpack is extremely poor on Umpqua, Rogue and Butte Creek drainages. April was a very wet month and precipitation amounts were 175% of normal. This helped the situation considerably. Streamflows this summer are expected to range from 65% on the Rogue to 85% of average on the Clearwater. Forecasts assume normal weather conditions from May 1 to July 31.

LEGEND

- Watershed Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course
- Precipitation Gage
- Temperature Gage
- ⚡ Radio Telemetry



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Applegate near Copper	53	65	May-July		81
	57	65	May-Sept.		87
Clearwater above Trap Creek	48	85	May-Sept.		57
Fourmile Lake net Inflow	2.5	82	May-July		3.0
Hyatt Reservoir net Inflow	1.7	80	May-July		2.2
Illinois River near Kerby	64	70	May-July		91
	68	70	May-Sept.		97
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	8.6	75	May-Sept.		11.5
Little Butte, S. Fk. near Lake Creek	12.1	75	May-July		16.1
	13.6	75	May-Sept.		18.4
Rogue above Prospect	118	64	May-July		184
	159	67	May-Sept.		239
Rogue, South Fork near Prospect	31	68	May-July		46
	36	65	May-Sept.		56
Rogue at Raygold near Central Point	320	65	May-July	345	493
	421	65	May-Sept.	507	648
Rogue at Grants Pass	408	65	May-Sept.		627
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls	100	72	May-Sept.		139

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	100	May 15	May 27

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Emigrant Lake	39.0	39.0	38.8	37.1
Fish Lake	8.0	5.8	5.3	6.4
Fourmile Lake	16.1	8.9	8.5	11.5
Howard Prairie	60.0	51.8	48.1	52.8
Hyatt Prairie	16.1	15.7	14.0	14.6
Lost Creek	315.0	303.4	--	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Applegate	--	--	--
Bear Creek	2	73	66
Butte Creek	4	200	36
Illinois River	--	--	--
North Umpqua	3	114	31
Rogue River	4	95	53

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

Only water users with access to reservoir water in Klamath County will have adequate water this summer. Potential shortages exist for all other users. The mountain snowpack is very poor except for one snow course south of Clear Lake in California. April was a wet month however, bringing precipitation 165% of average. Streamflows are forecast to be around 50% of average above Klamath Lake and 75% at Clear Lake this summer.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clear Lake Reservoir Inflow	11.8	78	May-Sept.		15.1
Gerber Reservoir Inflow	2.9	60	May-Sept.		4.8
Sprague near Chiloquin	96	58	May-Sept.		166
Upper Klamath Lake net Inflow	184	52	May-Sept.	339	353
Williamson below Sprague River	138	48	May-Sept.	218	287

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Upper Klamath	1	125	89

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake	440.2	180.1	229.7	294.2
Gerber	94.0	48.3	68.0	76.8
Upper Klamath Lake	584.0	484.7	488.9	467.7

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Lost River	2	117	117
Sprague River	3	99	81
Upper Klamath	6	78	56
Williamson River	3	114	43

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LAKE COUNTY, GOOSE LAKE WATERSHEDS

OREGON

GENERAL OUTLOOK

Lake County has good water supply prospects in the eastern half of the county and in those areas of the western half that have stored water available. Users on streams west and northwest of Lakeview that depend on direct diversions will have below normal supplies available. Streamflow on Silver Creek, Chewaucan River and Drews Creek will be much below normal. The snowpack is above normal on Deep Creek and below average elsewhere. April was a wet month, bringing precipitation amounts $1\frac{1}{2}$ times average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Chewaucan near Paisley	34	61	May-July	50	56
Deep above Adel	38	63	May-Sept.	55	60
	40	92	May-July		43
	41	92	May-Sept.		45
Drews Reservoir net Inflow	5.8	60	May-July		9.7
Honey Creek near Plush	9.0	80	May-July		11.3
	9.1	80	May-Sept.		11.4
Silver Creek near Silver Lake	6.4	60	May-July		10.7
Twentymile near Adel	10.5	95	May-Sept.		11.1

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Chewaucan, Silver Creek, Drew Creek	1	125	89
Honey, Deep, 20-Mi. Cr.	1	106	102

RESERVOIR STORAGE (Thousand Ac. Ft.)

END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cottonwood	8.7	6.1	8.7	6.2
Drews	63.0	46.6	58.0	59.0
Thompson Valley	19.5	10.6	--	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Chewaucan River	3	99	81
Deep Creek	2	122	117
Drew Creek	2	--	0
Honey Creek	1	--	26
Silver Creek	1	--	0
Twentymile Creek	--	--	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

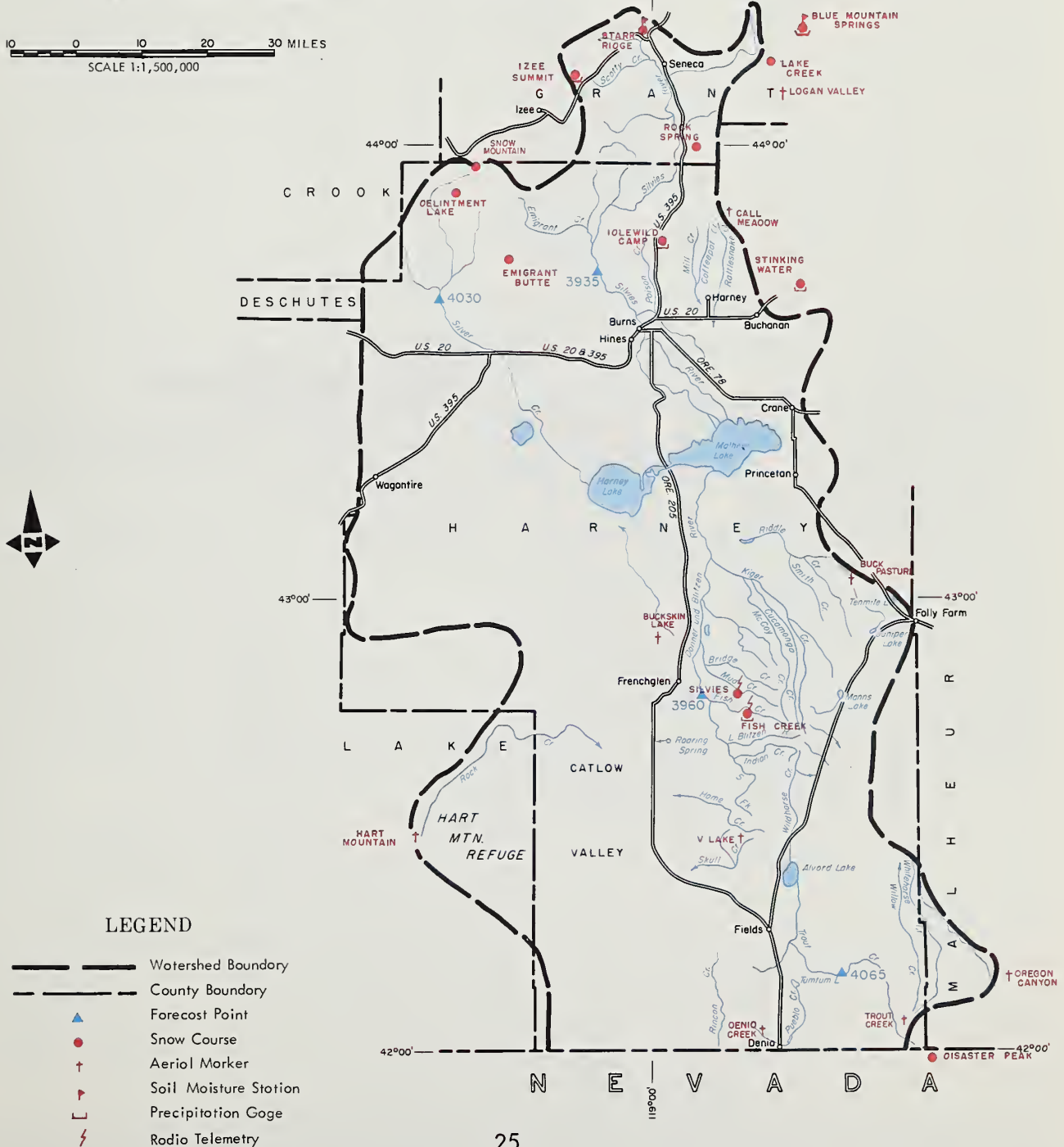
WATER SUPPLY OUTLOOK

HARNEY BASIN WATERSHEDS

OREGON

GENERAL OUTLOOK

Excellent water supplies should be available this summer in Harney County. Snow melt has been delayed somewhat by cool April temperatures. Precipitation was heavy during April. The 165% of average reported during the month brought the winter total to 116% of normal. Snow cover is 150% of normal on the Silvies drainage and should be above average in the Steens although no measurements were taken. Streamflows this summer will range from 115% on Silver Creek up to 150% on Trout Creek.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Donner und Blitzen near Frenchglen	52	138	May-July		37
	57	136	May-Sept.		42
Silver near Riley	5.9	115	May-July		5.1
Silvies River near Burns	45	136	May-July	33	33
	47	136	May-Sept.	37	35
Trout Creek near Denio	8.7	150	May-July		5.8
	9.3	150	May-Sept.		6.2

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Silvies River, Silver Cr.	1	100	102
Trout Cr., Donner und Blitzen River	--	--	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Donner und Blitzen R.	--	--	--
Silver Creek	--	--	--
Silvies River	4	485	147
Trout Creek	--	--	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1979

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. c
OWYHEE, MALHEUR WATERSHEDS					
Antelope Ridge (Ida.)		e			
Battle Creek (Ida.) *		e			
Bear Creek (Nev.)	4/26	58	23.1	27.7	21.3
Big Bend (Nev.)	4/26	14	5.0	2.8	2.5
Blue Mountain Springs	4/25	39	14.5	4.7	11.1
Blue Mtn. Spgs. Plw.(T)	4/25	--	19.0	--	--
Blue Mtn. Spgs. Plw.(S)	4/25	37	15.0	--	6.8b
Blue Mtn. Spgs. Plw.(M)	4/25	--	20.3	--	9.0b
Buck Pasture *		e			
Buckskin, Lower (Nev.)		e			
Buckskin, Upper (Nev.)		e			
Bull Basin (Ida.) *		e			
Bully Creek *		e			
Call Meadows *		e			
Columbia Basin (Nev.)		e			
Cottonwood-Indian *		e			
Disaster Peak (Nev.)		e			
Eldorado Pass	5/1	0	0.0	0.0	--
Fawn Creek (Nev.)		e			
Fish Creek *		e			
Fish Creek		e			
Fish Creek Pillow(S)		e			
Fish Creek Pillow(M)		e			
Flag Prairie *		e			
Fox Creek (Nev.)		e			
Fry Canyon (Nev.)	4/26	0	0.0	0.0	1.5
Gold Creek (Nev.)		e			
Granite Peak (Nev.)		e			
Hyde Pasture (Ida.) *		e			
Jack Creek, Lower (Nev.)	4/26	0	0.0	0.0	1.4b
Jack Creek, Upper (Nev.)	4/26	22	9.0	4.2	4.7b
Jack Peak (Nev.)	4/26	78	27.4	30.2	26.8
Lake Creek R.S.	4/26	7	2.6	--	3.4b
Lake Creek R.S. Plw.(T)	4/26	--	5.6	--	--
Lake Creek R.S. Plw.(S)	4/26	14	4.7	0.0	--
Lake Creek R.S. Plw.(M)	4/26	--	3.7	0.0	--
Laurel Draw (Nev.)	4/26	16	5.6	0.0	1.6b
Logan Valley *		e			
Lookout Butte *		e			
Louse Canyon *		e			
Martin Creek (Nev.)		e			
Merritt Mountain (Nev.) *		e			
Midas (Nev.) *		e			
Mud Flat (Ida.)		e			
Oregon Canyon *		e			
Quinn Ridge (Nev.) *		e			
Red Canyon (Ida.) *		e			
Rock Spring	4/26	0	0.0	0.0	0.6
Rock Spring Plw.(S)	4/26	0	0.0	--	--
Rock Spring Plw.(M)	4/26	--	0.0	--	--
Rodeo Flat (Nev.)	4/26	9	3.3	0.0	1.5
76 Creek (Nev.) *	4/26	26	11.3	9.1	6.7b
Silver City (Ida.)	4/30	26	12.9	8.3	11.3b
Silver City (Ida.) *		e			
Silvies *		e			
Silvies		e			
Silvies Pillow(S)		e			
Silvies Pillow(M)		e			
South Mountain #2 (Ida.)	4/30	25	11.6	8.8	7.1b
South Mtn. #2 Plw.(T)	5/1	--	10.2	--	--
Stag Mountain (Nev.) *		e			
Stinking Water	5/1	0	0.0	--	--
Succor Creek (Ida.) *		e			
Taylor Canyon (Nev.)	4/26	0	0.0	0.0	0.5
Toe Jam (Nev.) *		e			
Tremewan Ranch (Nev.) *	4/26	0	0.0	0.0	--
Trout Creek *		e			
"V" Lake *		e			
Vaught Ranch (Ida.) *		e			
War Eagle (Ida.) *		e			

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
Aneroid Lake #1	4/26	76	31.2	--	41.0
Aneroid Lake #2	4/26	69	27.8	--	36.5
Anthony Lake	4/25	83	31.7	26.9	30.8
Bald Mountain (OR) *	4/27	81	35.6	--	23.7 b
Beaver Reservoir (Rev.)	4/30	24	8.4	0.0	10.2
Beaver Res. Pillow (S)	4/30	18	5.3	--	--
Beaver Res. Pillow (M)	----				
Big Sheep *	4/27	58	23.2	22.0	23.7
Blue Mtn. Summit	4/27	7	2.5	0.0	1.8 b
Bourne	4/27	26	11.1	3.4	7.7 b
Bourne Pillow (T)	4/27	--	21.6	--	--
Bourne Pillow (S)	4/27	40	16.9	10.0	8.4 b
Bourne Pillow (M)	4/27	--	21.1	13.3	18.3 b
County Line	4/30	TR	0.1	0.0	1.2 b
County Line Pillow(S)	4/30	0	0.0	--	--
County Line Pillow (M)	4/30	--	0.0	--	--
Dooley Mountain	4/26	3	0.9	0.0	1.7
Eilertson Meadows	4/27	18	7.2	3.5	4.6 b
Eilertson Mdws.Plw.(S)	4/27	16	5.8	--	--
Eilertson Mdws.Plw.(M)	4/27	--	4.2	--	--
Eldorado Pass	5/1	0	0.0	0.0	--
Gold Center	4/27	16	7.0	0.1	4.5 b
Gold Center Pillow(S)	4/27	8	3.4	--	--
Gold Center Pillow(M)	4/27	--	4.1	--	--
Goodrich Lake	e				
Little Alps	4/25	47	15.3	10.5	14.5
Little Antone	4/25	0	0.0	0.0	--
Little Antone (Alt.)	4/25	10	2.8	0.0	0.7 b
Lucky Strike	4/27	36	16.2	4.1	7.8
Lucky Strike Pillow(T)	4/27	--	8.7	--	--
Lucky Strike Pillow(S)	4/27	16	6.2	0.0	3.0 b
Lucky Strike Pillow(M)	4/27	--	9.9	0.0	5.2 b
Meacham	4/27	8	3.8	0.0	2.9 b
Mirror Lake *	4/27	175	71.8	81.4	74.2 b
Moss Spring	4/27	75	32.8	23.2	24.6
Moss Spring Pillow(S)	4/27	68	30.2	--	--
Moss Spring Pillow(M)	4/27	--	30.7	--	--
Mt. Howard	4/27	65	25.8	--	--
Schneider Meadow	4/27	58	26.8	28.4	26.5
Schneider Meadow Plw.(S)	4/27	61	26.0	--	--
Schneider Meadow Plw.(M)	4/27	--	24.0	18.8	--
Schoolmarm	4/30	0	0.0	0.0	0.3
Standley *	4/27	98	43.1	42.1	35.7
Taylor Green	4/27	44	19.0	9.6	13.9 b
Taylor Green Pillow(T)	4/27	--	23.8	--	--
Taylor Green Pillow(S)	4/27	52	23.5	15.6	--
Taylor Green Pillow(M)	4/27	--	21.1	--	--
Tipton	4/27	0	0.0	0.0	1.6 b
Tipton Snow Pillow(S)	4/27	26	10.1	7.5	6.9 b
Tipton Snow Pillow(M)	----			10.0	5.0 b
Tollgate	4/27	60	30.2	11.2	20.1 b
TV Ridge *	4/27	60	24.0	26.2	23.9 b
West Eagle Meadows *	4/27	60	25.8	22.0	9.5 b
Wolf Creek Pillow(T)	4/27	--	14.7	--	--
Wolf Creek Pillow(S)	4/27	42	17.8	--	--
Wolf Creek Pillow(M)	4/27	--	16.9	--	--
* Aerial					
N/R No Report					
TR Trace					
T = Telemetry Measurement					
S = Snow Tube Measurement					
M = Manometer Measurement					

* Aerial
N/R No Report
TR Trace
T = Telemetry Measurement
S = Snow Tube Measurement
M = Manometer Measurement

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1979

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
Arbuckle Mountain	4/27	24	11.3	0.0	2.6 ^b
Arbuckle Mtn. Plw.(T)	4/27	--	27.7	--	--
Arbuckle Mtn. Plw.(S)	4/27	64	25.6	13.6	11.8 ^b
Arbuckle Mtn. Plw.(M)	4/27	--	28.8	16.8	22.3
Blue Mountain Camp	4/27	6	2.8	0.0	6.6 ^b
Bowman Springs Plw.(T)	4/27	--	6.1	--	--
Bowman Springs Plw.(S)	4/27	10	4.6	0.0	--
Bowman Springs Plw.(M)	4/27	--	5.2	0.0	--
Butte Creek Summit	N/R				
Emigrant Springs	4/27	0	0.0	0.0	0.2 ^b
Emigrant Springs Plw.(S)	4/27	0	0.0	--	--
Emigrant Springs Plw.(M)	----				
High Ridge Pillow(T)	4/30	--	29.4	--	--
High Ridge Pillow(S)	4/30	66	32.2	18.2	27.0
High Ridge Pillow(M)	4/30	--	28.0	2.6	25.1 ^b
Lucky Strike	4/27	36	16.2	4.1	7.8
Lucky Strike Pillow(T)	4/27	--	8.7	--	--
Lucky Strike Pillow(S)	4/27	16	6.2	0.0	3.0 ^b
Lucky Strike Pillow(M)	4/27	--	9.9	0.0	5.2 ^b
Madison Butte Pillow(S)	4/27	5	2.8	0.0	--
Madison Butte Pillow(M)	4/27	--	0.7	--	--
Meacham	4/27	8	3.8	0.0	2.9 ^b
Tollgate	4/27	60	30.2	11.2	20.1 ^b
UPPER JOHN DAY WATERSHEDS					
Anthony Lake	4/25	83	31.7	26.9	30.8
Arbuckle Mountain	4/27	24	11.3	0.0	2.6 ^b
Arbuckle Mountain Plw.(T)	4/27	--	27.7	--	--
Arbuckle Mountain Plw.(S)	4/27	64	25.6	13.6	11.8 ^b
Arbuckle Mountain Plw.(M)	4/27	--	28.8	16.8	22.3
Blue Mountain Springs	4/25	39	14.5	4.7	11.1
Blue Mtn. Spgs. Plw.(T)	4/25	--	19.0	--	--
Blue Mtn. Spgs. Plw.(S)	4/25	37	15.0	--	6.8 ^b
Blue Mtn. Spgs. Plw.(M)	4/25	--	20.3	--	9.0 ^b
Blue Mountain Summit	4/27	7	2.5	0.0	1.8 ^b
Butte Creek Summit	N/R				
Derr	e				
Derr Pillow(S)	e				
Derr Pillow(M)	e				
Gold Center	4/27	16	7.0	0.1	4.5 ^b
Gold Center Plw.(S)	4/27	8	3.4	--	--
Gold Center Plw.(M)	4/27	--	4.1	--	--
Indian Creek Butte *	Discontinued				
Izee Summit	4/25	18	6.5	0.0	2.4
Lucky Strike	4/27	36	16.2	4.1	7.8
Lucky Strike Plw.(T)	4/27	--	8.7	--	--
Lucky Strike Plw.(S)	4/27	16	6.2	0.0	3.0 ^b
Lucky Strike Plw.(M)	4/27	--	9.9	0.0	5.2 ^b
Marks Creek	4/30	0	0.0	0.0	0.1
Ochoco Meadows	e				
Ochoco Mdws. Plw.(S)	e				
Ochoco Mdws. Plw.(M)	e				
Olive Lake *	4/27	58	25.5	15.9	19.5 ^b
Schoolmarm	4/30	0	0.0	0.0	0.3
Snow Mountain	e				
Snow Mountain Plw.(T)	e				
Snow Mountain Plw.(S)	e				
Snow Mountain Plw.(M)	e				
Starr Ridge	4/25	7	1.8	0.0	1.2
Starr Ridge Plw.(S)	4/25	0	0.0	--	--
Starr Ridge Plw.(M)	4/25	--	0.0	--	--
Tipton	4/27	0	0.0	0.0	1.6 ^b
Tipton Pillow(S)	4/27	26	10.1	7.5	6.9 ^b
Tipton Pillow(M)	----			10.0	5.0 ^b

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
UPPER DESCHUTES, CROOKED WATERSHEDS					
Bald Peter	N/R			29.8	35.5 ^b
Caldwell Ranch	e				
Cascade Summit	4/26	46	20.7	8.0	27.4
Cascade Summit Plw.(S)	4/26	66	28.5	--	--
Cascade Summit Plw.(M)	----				
Chemult Alternate	5/3	0	0.0	0.0	1.8
Chemult Alt. Plw.(S)					
Chemult Alt. Plw.(M)					
Derr	e				
Derr Pillow(S)	e				
Derr Pillow(M)	e				
Hogg Pass	4/27	72	33.7	16.9	42.4
Hogg Pass Pillow (T)	4/27	--	27.2	--	--
Hogg Pass Pillow (S)	4/27	81	37.2	17.0	--
Hogg Pass Pillow (M)	4/27	--	30.6	22.4	--
Hungry Flat	5/1	0	0.0	0.0	--
Irish-Taylor Pillow(T)	5/1	--	25.6	--	64.3 ^b
Irish-Taylor Pillow(S)	5/1	70	30.9	24.5	35.4 ^b
Irish-Taylor Pillow(M)	5/1	--	24.4	19.0	--
Lionshead *	5/2	9	3.6	0.0	7.3
Marks Creek	4/30	0	0.0	0.0	0.1
New Crescent Lake	4/30	0	0.0	0.0	6.2
New Crescent Lake Plw.(S)	4/30	0	0.0	--	--
New Crescent Lake Plw.(M)	----				
New Dutchman Flat #2	4/30	85	38.9	35.2	55.9
Ochoco Meadows	e				
Ochoco Meadows Plw.(S)	e				
Ochoco Meadows Plw.(M)	e				
Racing Creek	5/2	0	0.0	1.2	12.6 ^b
Snow Mountain	e				
Snow Mountain Plw. (T)	e				
Snow Mountain Plw.(S)	e				
Snow Mountain Plw.(M)	e				
Summit Lake Pillow(T)	4/30	--	28.1	--	--
Summit Lake Pillow(S)	4/30	78	32.0	28.0	40.6 ^b
Summit Lake Pillow(M)	4/30	--	27.7	30.4	--
Tamarack	e				
Tangent	4/30	12	3.2	5.1	14.7
Three Creek Butte	4/27	0	0.0	0.0	2.4
Three Creek Meadow	4/27	19	9.5	0.5	13.9
Three Creek Mdw. Plw.(T)	----				
Three Creek Mdw. Plw.(S)	4/27	41	16.9	9.4	16.8 ^b
Three Creek Mdw. Plw.(M)	4/27	--	12.5	--	--
Waldo Lake	e				
Whitewater Meadow *	5/2	0	0.0	0.0	--
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS					
Brooks Meadow	e				
Clear Lake	4/26	17	7.1	0.0	7.3
Clear Lake Pillow(S)	4/26	38	16.6	--	--
Clear Lake Pillow(M)	----				
Clear Lake Expt.	4/26	38	16.6	0.0	11.4 ^b
Greenpoint	e				
Greenpoint Pillow(T)	e				
Greenpoint Pillow(S)	e				
Greenpoint Pillow(M)	e				
Mt. Hood Test Site (T)	4/30	--	42.4	41.0	68.3 ^b
Mt. Hood Test Site (S)	4/30	139	64.4	49.8	63.3 ^b
Mt. Hood Test Site (M)	4/30	--	42.6	41.8	--
Mud Ridge Pillow(T)	4/25	--	25.7	--	--
Mud Ridge Pillow(S)	4/25	44	19.5	0.0	25.4 ^b
Mud Ridge Pillow(M)	4/25	--	27.0	0.0	28.2 ^b
Red Hill	e				
Red Hill Pillow(T)	e				
Red Hill Pillow(S)	e				
Red Hill Pillow(M)	e				
Still Creek	4/25	54	24.2	0.0	24.1
Switchback	e				
Tilly Jane	e				
Umbrella Falls	4/28	121	56.9	49.0	67.9 ^b

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1979

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
LOWER COLUMBIA WATERSHED					
Blazed Alder Pillow(T)	N/R				
Blazed Alder Pillow(S)					
Blazed Alder Pillow(M)					
Mt. Hood Test Site(T)	4/30	--	42.4	41.0	68.3
Mt. Hood Test Site(S)	4/30	139	64.4	49.8	63.3
Mt. Hood Test Site(M)	4/30	--	42.6	41.8	--
Mud Ridge Pillow(T)	4/25	--	25.7	--	--
Mud Ridge Pillow(S)	4/25	44	19.5	0.0	25.4
Mud Ridge Pillow(M)	4/25	--	27.0	0.0	28.2
No. Fork Res. (T)	5/1	--	9.9	0.0	7.2
No. Fork Res. (S)	----			0.0	36.8
No. Fork Res. (M)	----				
Still Creek	4/25	54	24.2	0.0	24.1
WILLAMETTE WATERSHEDS					
Cascade Summit	4/26	46	20.7	8.0	27.4
Cascade Summit Pillow(S)	4/26	66	28.5	--	--
Cascade Summit Pillow(M)	----				
Champion	4/27	50	23.0	12.0	30.6
Clackamas Lake	e				
Clackamas Lake Plw.(S)	e				
Clackamas Lake Plw.(M)	e				
Clear Lake	4/26	17	7.1	0.0	7.3
Clear Lake Pillow(S)	4/26	38	16.6	--	--
Clear Lake Pillow(M)	----				
Clear Lake Expt.	4/26	38	16.6	0.0	11.4
Dead Horse Grade	4/30	13	5.9	0.0	14.0
Detroit (Town)	4/25	0	0.0	0.0	--
Detroit Dam	4/25	0	0.0	0.0	--
Golden Curry Creek	4/27	0	0.0	--	1.3
Hogg Pass	4/27	72	33.7	16.9	42.4
Hogg Pass Pillow(T)	4/27	--	27.2	--	--
Hogg Pass Pillow(S)	4/27	81	37.2	17.0	--
Hogg Pass Pillow(M)	4/27	--	30.6	22.4	--
Jump Off Joe Pillow(T)	4/25	--	0.0	--	--
Jump Off Joe Pillow(S)	4/25	0	0.0	0.0	--
Jump Off Joe Pillow(M)	4/25	--	0.0	0.0	--
Laurel Mountain	Discontinued				
Laying Creek	4/27	0	0.0	0.0	--
Lookout Point Dam	4/26	0	0.0	0.0	--
Lost Creek Ranch	e				
Lund Park	4/27	0	0.0	0.0	--
Marion Forks	4/27	0	0.0	0.0	7.2
Marion Forks Pillow(S)	4/27	0	0.0	--	--
Marion Forks Pillow(M)	4/27	--	0.1	--	--
Marys Peak	e				
McCredie Springs	4/26	0	0.0	0.0	--
McKenzie	4/30	70	34.5	19.4	48.1
McKenzie Pillow(S)	4/30	68	32.2	--	--
McKenzie Pillow(M)	----				
McKenzie Bridge	e				
Mill City	Discontinued				
Mt. Hood Test Site(T)	4/30	--	42.4	41.0	68.3
Mt. Hood Test Site(S)	4/30	139	64.4	49.8	63.3
Mt. Hood Test Site(M)	4/30	--	42.6	41.8	--
Oakridge	4/26	0	0.0	0.0	--
Peavine Ridge Pillow(T)	5/1	--	13.7	0.0	14.5
Railroad Overpass	4/26	0	0.0	0.0	--
Railroad Overpass Plw.(S)	4/26	0	0.0	--	--
Railroad Overpass Plw.(M)	4/26	--	0.0	--	--
Saddle Mtn. Pillow (T)	N/R				
Saddle Mtn. Pillow(S)	4/24	0	0.0	--	--
Saddle Mtn. Pillow(M)	----				
Salt Creek Falls	4/26	22	8.8	0.0	12.9
Salt Creek Falls Plw.(S)	4/26	41	17.1	--	--
Salt Creek Falls Plw.(M)	----				

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
WILLAMETTE WATERSHEDS (CONT.)					
Santiam Junction	4/25	19	7.0	0.0	16.2
Santiam Junction Plw.(T)	4/25	--	7.7	--	--
Santiam Junction Plw.(S)	4/25	18	8.2	0.0	--
Santiam Junction Plw.(M)	4/25	--	4.8	0.4	--
Seine Creek Pillow(T)	N/R				
Still Creek	4/25	54	24.2	0.0	24.1
Summit Lake Pillow(T)	4/30	--	28.1	--	--
Summit Lake Pillow(S)	4/30	78	32.0	28.0	40.6b
Summit Lake Pillow(M)	4/30	--	27.7	30.4	--
Timothy Lake	4/26	23	9.1	0.0	12.4b
Valsetz Summit	Discontinued				
Vida		e			
Waldo Lake		e			
Weaver Creek	4/27	0	0.0	0.0	--
White Branch Slide		e			
Whitewater Birdge	4/25	0	0.0	0.0	--
ROGUE, UMPQUA WATERSHEDS					
Althouse		e			
Annie Spring	5/1	64	29.5	43.2	45.8
Beaver Dam Creek	5/1	0	0.0	--	7.6b
Big Red Mountain		e			
Big Red Mountain Plw.(S)		e			
Big Red Mountain Plw.(M)		e			
Billie Creek Divide	4/26	66	16.5	5.9	14.3
Billie Cr. Div. Pillow(T)	4/26	--	8.0	--	--
Billie Cr. Div. Pillow(S)	4/26	54	13.4	5.0	4.3b
Billie Cr. Div. Pillow(M)	4/26	--	7.3	6.7	4.3b
Caliban	4/26	56	22.8	37.0	38.9b
Caliban (Alternate)	4/26	61	25.2	31.2	39.5b
Champion	4/27	50	23.0	12.0	30.6
Cold Springs Camp	4/30	47	22.0	26.0	35.7b
Cold Spgs. Camp Pillow(T)	----			--	30.5b
Cold Spgs. Camp Pillow(S)	4/30	28	12.5	13.2	38.3b
Cold Spgs. Camp Pillow(M)	4/30	--	11.9	16.0	--
Deadwood Junction	5/1	0	0.0	--	3.1b
Diamond-Crater Summit	4/25	47	20.7	22.2	30.7
Diamond Lake	4/25	22	9.6	8.4	18.2
Diamond Lake Pillow(S)	4/25	19	9.1	--	--
Diamond Lake Pillow(M)	----				
Fish Lake	4/26	11	5.3	0.0	7.9b
Fish Lake Pillow(S)	4/26	0	0.0	--	--
Fish Lake Pillow(M)	----				
Fourmile Lake	4/27	29	13.0	10.4	21.9b
Fourmile Lake Pillow(T)	4/27	--	15.6	--	--
Fourmile Lake Pillow(S)	4/27	39	16.7	26.0	16.6b
Fourmile Lake Pillow(M)	4/27	--	14.9	27.7	15.3b
Grayback Peak		e			
Howard Prairie Reservoir	5/1	0	0.0	--	2.6b
Hyatt Prairie	5/1	0	0.0	--	3.4b
Hyatt Prairie Pillow(S)	5/1	0	0.0	--	--
Hyatt Prairie Pillow(M)	----				
King Mountain #1	4/26	0	0.0	0.0	6.2b
King Mountain #2	4/26	0	0.0	0.0	3.1b
King Mountain #3	4/26	0	0.0	0.0	--
King Mountain #4	4/26	0	0.0	0.0	--
King Mountain #5	4/26	0	0.0	0.0	--
King Mountain #6	4/26	0	0.0	0.0	--
Little Red Mountain		e			
Mt. Ashland Switchback	4/26	60	24.3	33.5	37.1b
Mule Creek	4/26	0	0.0	0.0	2.8b
North Umpqua	5/1	0	0.0	0.0	7.3
Page Mountain		e			
Park Headquarters	5/1	95	44.8	55.6	63.7

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1979

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Oepth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. °
ROGUE, UMPQUA WATERSHEDS(CONT.)					
Red Butte #1	4/26	0	0.0	0.0	13.8
Red Butte #2	4/26	0	0.0	0.0	5.5
Red Butte #3	4/26	0	0.0	0.0	1.0
Red Butte #4	4/26	0	0.0	0.0	--
Red Butte #5	4/26	0	0.0	0.0	--
Red Butte #6	4/26	0	0.0	0.0	--
Seven Mile		e			
Seven Mile Pillow(S)		e			
Seven Mile Pillow(M)		e			
Silver Burn	4/30	0	0.0	0.0	3.5
Siskiyou Summit	4/25	0	0.0	0.0	--
Ski Bowl Road	4/26	44	16.8	23.6	26.0
South Fork Canal	5/1	0	0.0	0.0	--
Trap Creek	5/1	0	0.0	0.0	5.8
KLAMATH WATERSHEDS					
Annie Spring	5/1	64	29.5	43.2	45.8
Billie Creek Divide	4/26	66	16.5	5.9	14.3
Billie Cr. Div. Plw.(T)	4/26	--	8.0	--	--
Billie Cr. Div. Plw.(S)	4/26	54	13.4	5.0	4.3
Billie Cr. Div. Plw.(M)	4/26	--	7.3	6.7	4.3
Chemult Alternate	5/3	0	0.0	0.0	1.8
Chemult Alternate Plw.(S)	----				
Chemult Alternate Plw.(M)	----				
Chiloquin (PP&L)		e			
Cold Springs Camp	4/30	47	22.0	26.0	35.7
Cold Spgs. Camp Plw.(T)	----				
Cold Spgs. Camp Plw.(S)	4/30	28	12.5	13.2	38.3
Cold Spgs. Camp Plw.(M)	4/30	--	11.9	16.0	--
Crazyman Flat *	4/26	10	4.1	4.0	5.9
Crowder Flat (Calif.) *		e			
Crystal (PP&L)		e			
Diamond-Crater Summit	4/25	47	20.7	22.2	30.7
Dog Hollow *		e			
Finley Corrals *	4/26	22	9.0	6.0	8.8
Fort Klamath (PP&L)		e			
Fourmile Lake	4/27	29	13.0	10.4	21.9
Fourmile Lake Pillow(T)	4/27	--	15.6	--	--
Fourmile Lake Pillow(S)	4/27	39	16.7	26.0	16.6
Fourmile Lake Pillow(M)	4/27	--	14.9	27.7	15.3
Gerber		e			
Harriman (PP&L)		e			
Howard Prairie	5/1	0	0.0	--	2.6
Hyatt Prairie Reservoir	5/1	0	0.0	--	3.4
Hyatt Prairie Res.Plw.(S)	5/1	0	0.0	--	--
Hyatt Prairie Res.Plw.(M)	----				
Kirk (PP&L)		e			
Park Headquarters	5/1	95	44.8	55.6	63.7
Quartz Mountain	4/26	0	0.0	0.0	1.0
Quartz Mountain Ext.	4/26	0	0.0	--	--
Quartz Mtn. Pillow(S)	4/26	0	0.0	--	--
Quartz Mtn. Pillow(M)	4/26	--	0.0	--	--
Seven Mile		e			
Seven Mile Pillow(S)		e			
Seven Mile Pillow(M)		e			
State Line (Calif.) *		e			
Strawberry	4/28	0	0.0	0.0	2.4
Strawberry Pillow(S)	4/28	0	0.0	--	--
Strawberry Pillow(M)	4/28	--	0.0	--	--
Summer Rim *	4/26	32	13.1	13.2	14.5
Summer Rim		e			
Summer Rim Pillow(T)		e			
Summer Rim Pillow(S)		e			
Summer Rim Pillow(M)		e			
Sycan Flat *					
Taylor Butte	4/26	0	0.0	0.0	0.6
Taylor Butte Pillow(T)	4/26	--	0.0	--	--
Taylor Butte Pillow(S)	4/26	0	0.0	--	--
Taylor Butte Pillow(M)	4/26	-	0.0	--	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. °
LAKE COUNTY, GOOSE LAKE WATERSHEDS					
Adin Mountain (Calif.)	4/27	18	8.1	6.6	7.3
Bald Mountain (Nev.)		e			
Bear Flat Meadow *		e			
Camas Creek #1	4/26	2	0.8	0.0	3.1
Camas Creek #2	4/26	7	2.9	2.4	--
Cedar Pass (Calif.)	4/27	43	19.6	16.7	14.4
Colvin Creek *		e			
Cox Flat *		e			
Crowder Flat (Calif.) *		e			
Dismal Swamp (Calif.) *		e			
Finley Corrals *	4/26	22	9.0	6.0	8.8 ^b
Hart Mountain *		e			
Little Bally Mtn.(Nev.) *		e			
Mt. Bidwell (Calif.)		e			
North Star (Calif.)		e			
Patton Meadows *	4/26	27	11.1	13.2	13.8 ^b
Quartz Mountain	4/26	0	0.0	0.0	1.0
Quartz Mountain Ext.	4/26	0	0.0	--	--
Quartz Mountain Plw.(S)	4/26	0	0.0	--	--
Quartz Mountain Plw.(M)	4/26	--	0.0	--	--
Rogger Meadows *		e			
Sherman Valley *		e			
Silver Creek		e			
Silver Creek Pillow(S)		e			
Silver Creek Pillow(M)		e			
State Line (Calif.) *		e			
Strawberry	4/28	0	0.0	0.0	2.4
Strawberry Pillow(S)	4/28	0	0.0	--	--
Strawberry Pillow(M)	4/28	--	0.0	--	--
Summer Rim *	4/26	32	13.1	13.2	14.5 ^b
Summer Rim		e			
Summer Rim Pillow(T)		e			
Summer Rim Pillow(S)		e			
Summer Rim Pillow(M)		e			
Sycan Flat *		e			
HARNEY BASIN WATERSHEDS					
Blue Mountain Springs	4/25	39	14.5	4.7	11.1
Blue Mtn. Spgs. Plw.(T)	4/25	--	19.0	--	--
Blue Mtn. Spgs. Plw.(S)	4/25	37	15.0	--	6.8 ^b
Blue Mtn. Spgs. Plw.(M)	4/25	--	20.3	--	9.0 ^b
Buck Pasture *		e			
Buckskin Lake *		e			
Call Meadows *		e			
Delintment Lake		e			
Denio Creek *		e			
Disaster Peak (Nev.)		e			
Emigrant Butte		e			
Fish Creek *		e			
Fish Creek		e			
Fish Creek Pillow(S)		e			
Fish Creek Pillow(M)		e			
Hart Mountain *		e			
Idlewild Camp Alt.	5/1	0	0.0	0.0	0.5 ^b
Izee Summit	4/25	18	6.5	0.0	2.4
Lake Creek R.S.	4/26	7	2.6	--	3.4 ^b
Lake Creek R.S. Plw.(T)	4/26	--	5.6	--	--
Lake Creek R.S. Plw.(S)	4/26	14	4.7	0.0	--
Lake Creek R.S. Plw.(M)	4/26	--	3.7	0.0	--
Oregon Canyon *		e			
Rock Spring	4/26	0	0.0	0.0	0.6
Rock Spring Pillow(S)	4/26	0	0.0	--	--
Rock Spring Pillow(M)	4/26	--	0.0	--	--
Silvies *		e			
Silvies		e			
Silvies Pillow(S)		e			
Silvies Pillow(M)		e			
Snow Mountain		e			
Snow Mountain Plw.(T)		e			
Snow Mountain Plw.(S)		e			
Snow Mountain Plw.(M)		e			
Starr Ridge	4/25	7	1.8	0.0	1.2
Starr Ridge Pillow(S)	4/25	0	0.0	--	--
Starr Ridge Pillow(M)	4/25	--	0.0	--	--
Stinking Water	5/1	0	0.0	--	--
Trout Creek #		e			
"V" Lake *		e			

(a) Estimated, (b) 1963-77 adjusted average, (c) 1963-77, 15 year average, (d) Corrected to natural flow, (e) Not Scheduled.

BASIC DATA SUPPLEMENT 2

MAY 1, 1979

SOIL MOISTURE

DRAINAGE BASIN and or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average ^c
OWYHEE, MALHEUR WATERSHEDS							
Bear Creek (Nev.)	7800	72	16.8	Discontinued			
Big Bend (Nev.)	6700	48	16.7	Discontinued			
Blue Mountain Spring	5900	42	16.9	4/25/79	12.5	--	12.4
Mud Flat (Ida.)	5500	48	12.8	Discontinued			
Rodeo Flat (Nev.)	6800	42	11.0	Discontinued			
Taylor Canyon (Nev.)	6200	48	15.1	Discontinued			
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS							
Blue Mountain Summit	5100	36	16.8	4/27/79	15.0	16.0	15.0
Doolley Mountain	5430	36	9.2	4/26/79	6.7	7.6	6.4
Emigrant Springs	3925	48	22.3	5/2/79	20.9	19.6	20.7
Ladd Summit	3730	48	18.9	4/26/79	13.8	13.2	11.8
Moss Springs	5850	36	25.8	4/27/79	16.6	14.4	15.7
Tollgate	5070	48	23.6	4/27/79	16.5	17.4	18.3
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	5/2/79	13.5	13.5	13.3
Emigrant Springs	3925	48	22.3	5/2/79	20.9	19.6	20.7
Tollgate	5070	48	23.6	4/27/79	16.5	17.4	18.3
UPPER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	5/2/79	13.5	13.5	13.3
Blue Mountain Spring	5900	42	16.9	4/25/79	12.5	12.6	12.4
Blue Mountain Summit	5100	36	16.8	4/27/79	16.0	16.0	15.0
Derr	5670	24	9.0	<i>e</i>			
Marks Creek	4540	36	14.1	4/30/79	11.7	12.4	13.0
Snow Mountain	6300	48	16.7	<i>e</i>			
Starr Ridge	5150	36	10.6	4/25/79	10.6	10.6	10.4
UPPER DESCHUTES, CROOKED WATERSHEDS							
Derr	5670	24	9.0	<i>e</i>			
Marks Creek	4540	36	14.1	4/30/79	11.7	12.4	13.0
Snow Mountain	6300	48	16.7	<i>e</i>			
KLAMATH WATERSHEDS							
Quartz Mountain	5230	48	15.3	4/26/79	8.4	9.9	9.4
LAKE COUNTY, GOOSE LAKE WATERSHEDS							
Camas Creek	5720	42	14.5	4/26/79	13.0	12.3	12.7
Quartz Mountain	5230	48	15.3	4/26/79	8.4	9.9	9.4
HARNEY BASIN WATERSHEDS							
Blue Mountain Spring	5900	42	16.9	4/25/79	12.5	12.6	12.4
Silvies	6900	48	16.4	<i>e</i>			
Snow Mountain	6300	48	16.7	<i>e</i>			
Starr Ridge	5150	36	10.6	4/25/79	10.6	10.6	10.4
Willow-Bald	5000	24	6.6	No Report		6.6	6.0

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 3

MAY 1, 1979

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Arbuckle Mountain (Morrow County)	5400	From 4/1 To 4/27	5.50"		
Beaver Reservoir (Union County)	5150	From 3/28 To 4/30	4.80"		
Billie Creek Divide (Jackson County)	5310	From 3/26 To 4/26	7.92"		
Blue Mt. Springs (Grant County)	5900	From 3/28 To 4/25	3.50"		
Bourne (Baker County)	5800	From 4/3 To 4/27	2.40"		
Bowman Springs (Union County)	4580	From 4/1 To 4/27	4.75"		
Cascade Summit (Lane County)	4880	From 3/30 To 4/26	9.00"		
Clear Lake (Wasco County)	3500	From 3/27 To 4/26	7.32"		
Cold Springs (Klamath County)	6100	From 3/30 To 4/30	7.20"		
County Line (Umatilla County)	4800	From 3/30 To 4/30	5.40"		
Eilertson Meadow (Baker County)	5400	From 4/3 To 4/27	1.92"		
Emigrant Springs (Umatilla County)	3925	From 3/29 To 4/27	6.24"		
Fish Lake (Jackson County)	4665	From 3/26 To 4/26	9.00"		
Fourmile (Klamath County)	6000	From 3/30 To 4/27	5.40"		
Gold Center (Grant County)	5340	From 4/3 To 4/27	2.28"		
High Ridge (Umatilla County)	4150	From 4/2 To 4/30	4.44"		
Hogg Pass (Jefferson County)	4755	From 3/27 To 4/27	11.16"		
Irish-Taylor (Deschutes County)	5500	From 3/29 To 5/1	9.72"		
Jump Off Joe (Linn County)	3400	From 3/27 To 4/25	11.76"		
Lake Creek (Grant County)	5120	From 3/29 To 4/26	1.92"		
Lucky Strike (Umatilla County)	5050	From 4/1 To 4/27	8.25"		
Madison Butte (Morrow County)	5250	From 4/1 To 4/27	4.32"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

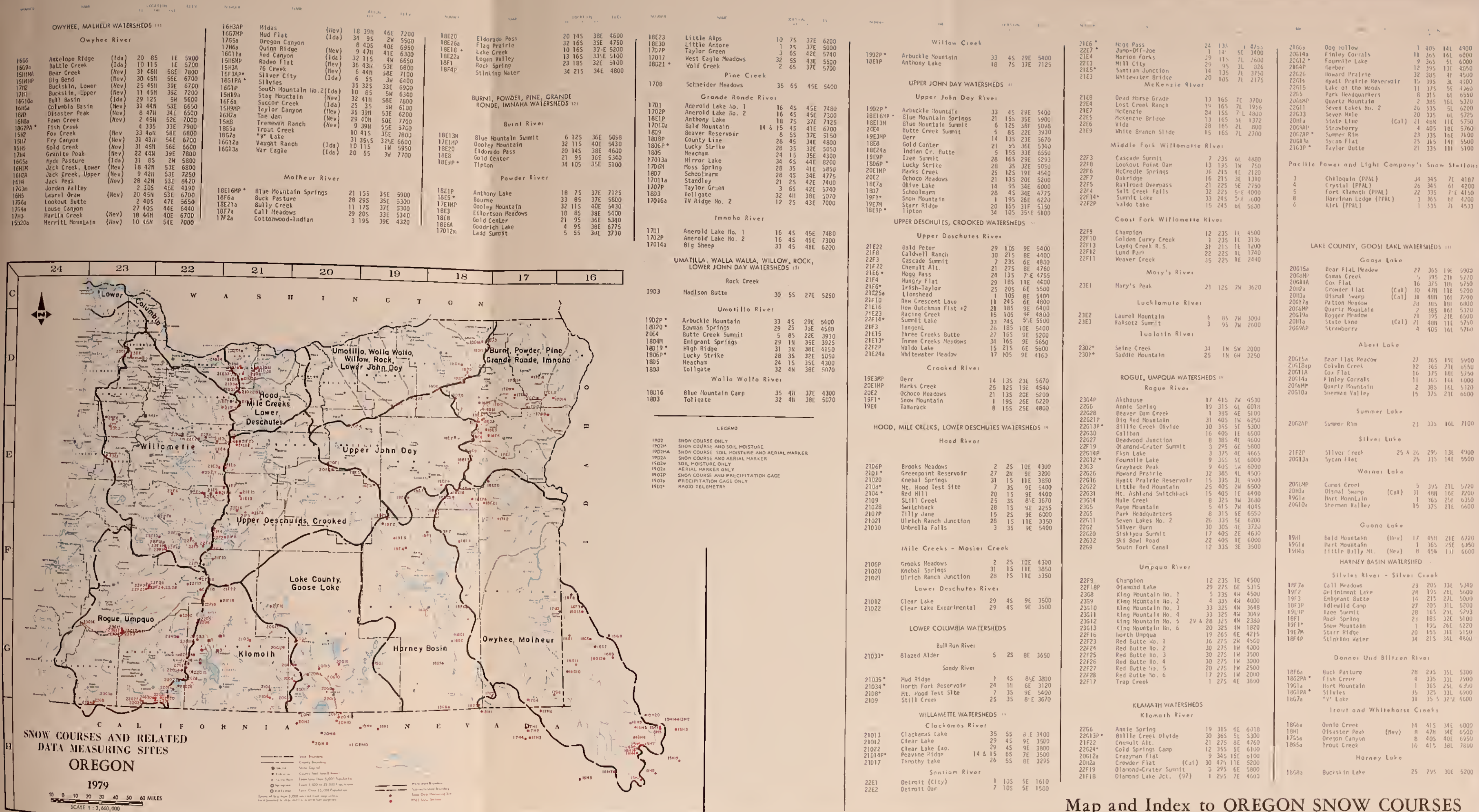
BASIC DATA SUPPLEMENT 3

MAY 1, 1979

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Marion Forks (Linn County)	2730	From 3/27 To 4/27	11.28"		
Marks Creek (Crook County)	4540	From 3/27 To 4/30	3.7"		
Moss Springs (Union County)	5850	From 4/4 To 4/27	8.64"		
Mud Ridge (Clackamas County)	3800	From 3/29 To 4/25	9.72"		
New Crescent Lake (Klamath County)	4800	From 3/30 To 4/30	6.0"		
Railroad Overpass (Lane County)	2750	From 3/30 To 4/26	8.76"		
Rock Springs (Grant County)	5100	From 3/29 To 4/26	3.24"		
Salt Creek Falls (Lane County)	4000	From 3/30 To 4/26	9.00"		
Santiam Junction (Lane County)	3750	From 3/27 To 4/27	9.60"		
Schneider Meadows (Baker County)	5400	From 4/5 To 4/27	2.52"		
Starr Ridge (Grant County)	5156	From 3/28 To 4/25	3.96"		
Strawberry (Lake County)	5760	From 3/29 To 4/28	1.80"		
Summit Lake (Klamath County)	5600	From 3/30 To 4/30	8.76"		
Taylor Green (Baker County)	5740	From 4/5 To 4/27	3.84"		
Three Creek Meadows (Deschutes County)	5650	From 3/28 To 4/27	2.52"		
Tipton (Baker County)	5100	From 4/3 To 4/27	2.28"		
Wolf Creek (Union County)	5700	From 4/3 To 4/27	1.68"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



Map and Index to OREGON SNOW COURSES



The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon Department Of Water Resources
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - NOAA, National Weather Service
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific National

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of Portland
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale - Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- The Crag Rats, Hood River, Oregon

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